

Solution for the problem of the Stokes flow past a body of arbitrary shape using conformal mapping

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Abstract

© Published under licence by IOP Publishing Ltd. An approach to the calculation of flow of an incompressible viscous fluid in the Stokes approximation is developed based on the finite difference method with the use of conformal mapping. The problems of flow around a circular cylinder and ellipse in a periodic circular cell have been solved. The method is particularly well suited for solving problems of flow around bodies of an arbitrary curved shape.

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